



DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2022-0390; Project Identifier MCAI-2021-00968-T]

RIN 2120-AA64

Airworthiness Directives; Dassault Aviation Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: The FAA proposes to adopt a new airworthiness directive (AD) for all Dassault Aviation Model FALCON 7X airplanes. This proposed AD was prompted by a report of a weak point identified in the Falcon 7X ‘EASy’ avionics architecture, which, coupled with theoretical generic input/output (I/O) card failure, could lead to misleading data on display units. This proposed AD would require revising the existing airplane flight manual (AFM) to provide emergency procedures for inconsistent or unreliable flight data and emergency and abnormal operations procedures for the GEN I/O internal module failure, and revising the operator’s existing FAA-approved minimum equipment list (MEL) items for the multi-function probe heating, air data, and inertial reference systems, as specified in a European Union Aviation Safety Agency (EASA) AD, which is proposed for incorporation by reference. This proposed AD would also require revising the existing AFM to incorporate additional information in the emergency procedures. The FAA is proposing this AD to address the unsafe condition on these products.

DATES: The FAA must receive comments on this proposed AD by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: You may send comments, using the procedures found in 14 CFR 11.43 and 11.45, by any of the following methods:

- Federal eRulemaking Portal: Go to <https://www.regulations.gov>. Follow the instructions for submitting comments.

- Fax: 202-493-2251.

- Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, Washington, DC 20590.

- Hand Delivery: Deliver to Mail address above between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For material that will be incorporated by reference (IBR) in this AD, contact EASA, Konrad-Adenauer-Ufer 3, 50668 Cologne, Germany; telephone +49 221 8999 000; email ADs@easa.europa.eu; Internet www.easa.europa.eu. You may find this material on the EASA website at <https://ad.easa.europa.eu>. You may view this material at the FAA, Airworthiness Products Section, Operational Safety Branch, 2200 South 216th St., Des Moines, WA. For information on the availability of this material at the FAA, call 206-231-3195. It is also available in the AD docket at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2022-0390.

Examining the AD Docket

You may examine the AD docket at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2022-0390; or in person at Docket Operations between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this NPRM, the mandatory continuing airworthiness information (MCAI), any comments received, and other information. The street address for Docket Operations is listed above.

FOR FURTHER INFORMATION CONTACT: Tom Rodriguez, Aerospace Engineer, Large Aircraft Section, FAA, International Validation Branch, 2200 South 216th St., Des Moines, WA 98198; telephone 206-231-3226; email Tom.Rodriguez@faa.gov.

SUPPLEMENTARY INFORMATION:

Comments Invited

The FAA invites you to send any written relevant data, views, or arguments about this proposal. Send your comments to an address listed under ADDRESSES. Include “Docket No. FAA-2022-0390; Project Identifier MCAI-2021-00968-T” at the beginning of your comments. The most helpful comments reference a specific portion of the proposal, explain the reason for any recommended change, and include supporting data. The FAA will consider all comments received by the closing date and may amend this proposal because of those comments.

Except for Confidential Business Information (CBI) as described in the following paragraph, and other information as described in 14 CFR 11.35, the FAA will post all comments received, without change, to <https://www.regulations.gov>, including any personal information you provide. The agency will also post a report summarizing each substantive verbal contact received about this NPRM.

Confidential Business Information

CBI is commercial or financial information that is both customarily and actually treated as private by its owner. Under the Freedom of Information Act (FOIA) (5 U.S.C. 552), CBI is exempt from public disclosure. If your comments responsive to this NPRM contain commercial or financial information that is customarily treated as private, that you actually treat as private, and that is relevant or responsive to this NPRM, it is important that you clearly designate the submitted comments as CBI. Please mark each page of your submission containing CBI as “PROPIN.” The FAA will treat such marked submissions as confidential under the FOIA, and they will not be placed in the public docket of this NPRM. Submissions containing CBI should be sent to Tom Rodriguez, Aerospace Engineer, Large Aircraft Section, FAA, International Validation Branch, 2200 South 216th St., Des Moines, WA 98198; telephone 206-231-3226; email

Tom.Rodriguez@faa.gov. Any commentary that the FAA receives which is not specifically designated as CBI will be placed in the public docket for this rulemaking.

Background

EASA, which is the Technical Agent for the Member States of the European Union, has issued EASA AD 2021-0197, dated August 23, 2021 (EASA AD 2021-0197) (also referred to as the MCAI), to correct an unsafe condition for all Dassault Aviation Model FALCON 7X airplanes. The FAA notes that Model FALCON 7X airplanes with Dassault modification M1000 incorporated are commonly referred to as “Model FALCON 8X” as a marketing designation. This proposed AD was prompted by a report of a weak point identified in the Falcon 7X ‘EASy’ avionics architecture, which, coupled with theoretical generic I/O card failure, could lead to misleading data on display units. The FAA is proposing this AD to address this condition, which could reduce safety margins and lead to increased pilot workload, and consequent reduced controllability of the airplane. See the MCAI for additional background information.

Related Service Information Under 1 CFR Part 51

EASA AD 2021-0197 specifies procedures for revising the existing AFM to provide emergency procedures for inconsistent or unreliable flight data and emergency and abnormal operations procedures for the GEN I/O internal module failure, revising the operator’s existing MEL for the air data and inertial reference systems, and revising the operating suitability manual. This material is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES section.

FAA’s Determination

This product has been approved by the aviation authority of another country and is approved for operation in the United States. Pursuant to the FAA’s bilateral agreement with this State of Design Authority, it has notified the FAA of the unsafe condition

described in the MCAI referenced above. The FAA is issuing this NPRM after determining that the unsafe condition described previously is likely to exist or develop in other products of the same type design.

Proposed AD Requirements in this NPRM

This proposed AD would require accomplishing the actions specified in EASA AD 2021-0197 described previously, except for any differences identified as exceptions in the regulatory text of this proposed AD, and except as discussed under “Differences Between this Proposed AD and the MCAI.” This proposed AD also requires revising the existing AFM to incorporate additional information in the emergency procedures.

Difference Between this Proposed AD and the MCAI

EASA AD 2021-0197 requires operators to “inform all flight crews, and, thereafter, ensure that each pilot has performed the training and operate the aeroplane accordingly” for the AFM amendment, master minimum equipment list (MMEL) implementation, and Operational Suitability Manual-Flight Crew (OSM-FC) implementation required by that EASA AD. However, this proposed AD would not specifically require those actions for the reasons specified below:

For the AFM amendment: This proposed AD would not specifically require the “inform all flight crews, and, thereafter, ensure that each pilot has performed the training and operate the aeroplane accordingly” actions as those actions are already required by FAA regulations for the AFM. FAA regulations require operators furnish to pilots any changes to the AFM (for example, 14 CFR 135.81(c)), and to ensure the pilots are familiar with the AFM (for example, 14 CFR 91.505(a)). FAA regulations also require pilots to follow the procedures in the existing AFM including all updates. 14 CFR 91.9 requires that any person operating a civil aircraft must comply with the operating limitations specified in the AFM. Therefore, including a requirement in this proposed AD

to operate the airplane according to the revised AFM would be redundant and unnecessary.

For the MMEL implementation: FAA regulations (14 CFR 91.213(a)(4)) require operators to provide pilots with access to all of the information contained in the operator's existing FAA-approved MEL. Compliance with such a requirement ("inform all flight crews, and, thereafter, ensure that each pilot has performed the training and operate the aeroplane accordingly") for the MMEL in an AD would be impracticable to demonstrate or track on an ongoing basis; therefore, a requirement to operate the airplane in such a manner would be unenforceable.

For the OSM-FC implementation: This proposed AD would not specifically require the "inform all flight crews, and, thereafter, ensure that each pilot has performed the training and operate the aeroplane accordingly" actions as this proposed AD would not require implementing the Dassault Falcon 7X Falcon 8X OSM-FC, DGT148654, Revision 6, dated July 2, 2021 (Dassault Falcon 7X Falcon 8X OSM-FC, Revision 6). Paragraph (4) of the EASA AD 2021-0197 does not apply to this proposed AD because Dassault Falcon 7X Falcon 8X OSM-FC, Revision 6, is not an FAA-approved document and therefore operators might not have that document as part of their training program. The FAA reviewed the actions in Dassault Falcon 7X Falcon 8X OSM-FC, Revision 6, and determined the information for Tp-118-EZII of the OSM-FC is necessary for flightcrew awareness and therefore must be included in the AFM. The FAA has included paragraph (i) in this proposed AD to require revising the existing AFM, as applicable, to incorporate the information for Tp-118-EZII of the OSM-FC, specified in figure 1 to paragraph (i) of this proposed AD, after sub-sub-section 2-200-70, ADS with IRS miscompare, of sub-section 2-200, Emergency Procedures, of Section 2 - Emergency Procedures.

Explanation of Required Compliance Information

In the FAA's ongoing efforts to improve the efficiency of the AD process, the FAA developed a process to use some civil aviation authority (CAA) ADs as the primary source of information for compliance with requirements for corresponding FAA ADs. The FAA has been coordinating this process with manufacturers and CAAs. As a result, the FAA proposes to incorporate EASA AD 2021-0197 by reference in the FAA final rule. This proposed AD would, therefore, require compliance with EASA AD 2021-0197 in its entirety through that incorporation, except for any differences identified as exceptions in the regulatory text of this proposed AD. Using common terms that are the same as the heading of a particular section in EASA AD 2021-0197 does not mean that operators need comply only with that section. For example, where the AD requirement refers to "all required actions and compliance times," compliance with this AD requirement is not limited to the section titled "Required Action(s) and Compliance Time(s)" in EASA AD 2021-0197. Service information required by EASA AD 2021-0197 for compliance will be available at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2022-0390 after the FAA final rule is published.

Interim Action

The FAA considers this proposed AD interim action. If final action is later identified, the FAA might consider further rulemaking then.

Costs of Compliance

The FAA estimates that this proposed AD would affect 121 airplanes of U.S. registry. The FAA estimates the following costs to comply with this proposed AD:

Estimated costs for required actions

Labor cost	Parts cost	Cost per product	Cost on U.S. operators
2 work-hours X \$85 per hour = \$170	\$0	\$170	\$20,570

Authority for this Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII: Aviation Programs, describes in more detail the scope of the Agency's authority.

The FAA is issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: General requirements. Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

The FAA determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify this proposed regulation:

- (1) Is not a "significant regulatory action" under Executive Order 12866,
- (2) Would not affect intrastate aviation in Alaska, and

(3) Would not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

The Proposed Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 14 CFR part 39 as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. The FAA amends § 39.13 by adding the following new airworthiness directive:

Dassault Aviation: Docket No. FAA-2022-0390; Project Identifier

MCAI-2021-00968-T.

(a) Comments Due Date

The FAA must receive comments on this airworthiness directive (AD) by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) Affected ADs

None.

(c) Applicability

This AD applies to all Dassault Aviation Model FALCON 7X airplanes, certificated in any category.

(d) Subject

Air Transport Association (ATA) of America Code 34, Navigation.

(e) Unsafe Condition

This AD was prompted by a report of a weak point identified in the Falcon 7X ‘EASy’ avionics architecture, which, coupled with theoretical generic input/output (I/O) card failure, could lead to misleading data on display units. The FAA is issuing this AD to address this condition, which could reduce safety margins and lead to increased pilot workload, and consequent reduced controllability of the airplane.

(f) Compliance

Comply with this AD within the compliance times specified, unless already done.

(g) Requirements

Except as specified in paragraphs (h) and (i) of this AD: Comply with all required actions and compliance times specified in, and in accordance with, European Union Aviation Safety Agency (EASA) AD 2021-0197, dated August 23, 2021 (EASA AD 2021-0197).

(h) Exceptions to EASA AD 2021-0197

(1) Where EASA AD 2021-0197 refers to its effective date, this AD requires using the effective date of this AD.

(2) Whereas EASA AD 2021-0197 requires operators to “inform all flight crews, and, thereafter, ensure that each pilot has performed the training and operate the aeroplane accordingly,” this AD does not require those actions.

(3) Where paragraph (3) of EASA AD 2021-0197 specifies to “implement the instructions of the MMEL-CP,” this AD requires revising the operator’s existing FAA-approved minimum equipment list (MEL) to incorporate that information (“the MMEL-CP” as specified in EASA AD 2021-0197).

(4) Paragraph (4) of EASA AD 2021-0197 does not apply to this AD.

(5) The “Remarks” section of EASA AD 2021-0197 does not apply to this AD.

(i) Airplane Flight Manual (AFM) Revision

Within 2 months after the effective date of this AD, revise the applicable existing AFM to incorporate the information specified in figure 1 to paragraph (i) of this AD after sub-sub-section 2-200-70, Emergency Procedures, ADS with IRS miscompare, of sub-section 2-200, Emergency Procedures, of Section 2 - Emergency Procedures.

Figure 1 to paragraph (i) – Training Areas of Special Emphasis for pilot
(TASEp) Tp-118-EZII Info for AFM

TASEp Tp-118-EZII Information

- 1) Potentially unreliable information exists on the iPFD and/or HUD
- 2) Aircraft must be flown by reference to SFD
- 3) Aircraft trajectory must be monitored on the iNAV
- 4) The iNAV may have misleading/confusing representations
- 5) Before using iNAV for aircraft trajectory monitoring, LH pilot side is to be selected
- 6) Pilot side selection has impacts on task sharing between Pilot Flying and Pilot Monitoring
- 7) Presence of both ADS and IRS CAS messages requires that newly developed single emergency procedure must be performed instead of performing separate ADS and IRS emergency procedures
- 8) There may be a time delay of up to 10 secs between the ADS and IRS MISCOMPARE messages during critical phases of flight
- 9) The special single emergency procedure is not available on ECL (paper checklist from AFM or CODDE2 is required)
- 10) Crew workload in this failure situation will be high

(j) Additional AD Provisions

The following provisions also apply to this AD:

(1) *Alternative Methods of Compliance (AMOCs)*: The Manager, Large Aircraft Section, International Validation Branch, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or responsible Flight

Standards Office, as appropriate. If sending information directly to the Large Aircraft Section, International Validation Branch, send it to the attention of the person identified in paragraph (k)(2) of this AD. Information may be emailed to: 9-AVS-AIR-730-AMOC@faa.gov. Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the responsible Flight Standards Office.

(2) *Contacting the Manufacturer:* For any requirement in this AD to obtain instructions from a manufacturer, the instructions must be accomplished using a method approved by the Manager, Large Aircraft Section, International Validation Branch, FAA; or EASA; or Dassault Aviation's EASA Design Organization Approval (DOA). If approved by the DOA, the approval must include the DOA-authorized signature.

(k) Related Information

(1) For EASA AD 2021-0197, contact EASA, Konrad-Adenauer-Ufer 3, 50668 Cologne, Germany; telephone +49 221 8999 000; email ADs@easa.europa.eu; Internet www.easa.europa.eu. You may find this EASA AD on the EASA website at <https://ad.easa.europa.eu>. You may view this material at the FAA, Airworthiness Products Section, Operational Safety Branch, 2200 South 216th St., Des Moines, WA. For information on the availability of this material at the FAA, call 206-231-3195. This material may be found in the AD docket at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2022-0390.

(2) For more information about this AD, contact Tom Rodriguez, Aerospace Engineer, Large Aircraft Section, FAA, International Validation Branch, 2200 South 216th St., Des Moines, WA 98198; telephone and fax 206-231-3226; email Tom.Rodriguez@faa.gov.

Issued on March 29, 2022.

Lance T. Gant, Director,
Compliance & Airworthiness Division,
Aircraft Certification Service.

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